## Application No. 10/567,929 Reply to Restriction Requirement of November 29, 2007

Applicants elect, with traverse, Group I, Claims 1-24, drawn to a semiconductor device, for examination. As a Specie set, Applicants provisionally elect, for examination purposes only: Species A, i.e. the hole conductor is selected from polymethacrylates and derivatives; first sub-Specie 1, carbon nanotubes grown vertically; second sub-Specie a, first and/or second electrode is a film or layer of a transparent material; and third sub-Specie I, a solid inorganic crystalline substrate. Claims 1-12, 13, 14, 16-18 and 20-24 read on the elected Specie.

Restriction is only proper if the claims of the restricted groups are independent or patentably distinct and there would be a serious burden placed on the Examiner if restriction is not required (MPEP §803). The burden is on the Examiner to provide reasons and/or examples to support any conclusion in regard to patentable distinction (MPEP §803). Moreover, when citing lack of unity of invention in a national stage application, the Examiner has the burden of explaining why each group lacks unity with each other group specifically describing special technical features in each group (MPEP § 1893.03(d)).

The Office has asserted that Groups 1-2 do not relate to a single general inventive concept under PCT Rule 13.1 because under PCT Rule 13.2, they lack a significant structural element qualifying as a special technical feature that defines a contribution over the prior art. The examiner has cited Kymis et al. "Single-Wall Carbon Nanotube/Conjugated Polymer Photovoltaic Devices," <u>Applied Physics Letters</u>, American Institute of Physics, New York, U.S. Vol. 80, no 1,7 January 2002 (2002-01-07), pages 112-114, XP001092647 as disclosing "a photovoltaic device, comprising a composition of carbon nanotubes and of at least one organic compound acting as a hole conductor."

Annex B of the Administrative Instructions under the PCT at (b) Technical Relationship states:

"The expression "special technical features" is defined in Rule 13.2 as meaning those technical features that defines a contribution which each of the inventions, considered as a whole, makes over the prior art. The determination is made on the contents of the claims as interpreted in light of the description and drawings (if any)." Applicants respectfully submit that the Examiner has not provided any indication that the

contents of the claims interpreted in light of the description was considered in making the

assertion of a lack of unity and therefore has not met the burden necessary to support the

assertion.

Moreover, Applicants respectfully refer to Annex B of the Administrative Instructions

Under the PCT, paragraph (c), which states in part, "Unity of invention has to be considered in

the first place only in relation to the independent claims in an international application and not

the dependent claims." Applicants note that Claims 2-25 all depend directly or indirectly from

Claim 1 in this application.

Furthermore, 37 C.F.R. § 1.475(b) states in pertinent part:

"An international or a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories:

(2) A product and a process of use of said product; ...."

In addition, The MPEP §806.03 states:

"Where the claims of an application define the same essential characteristics of a *single* disclosed embodiment of an invention, restriction therebetween should never be required. This is because the claims are not directed to distinct inventions; rather they are different definitions of the same disclosed subject matter, varying in breadth or scope of definition."

Applicants respectfully submit that the Office has not considered the relationship of the inventions of Groups 1-2 with respect to 37 C.F.R. § 1.475(b)(2) and MPEP §806.03. Therefore the burden necessary according to MPEP § 1893.03(d) to sustain the conclusion that the groups lack of unity of invention has not been met. For this reason, Applicants submit that the Requirement for Restriction should be withdrawn.

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Accordingly, and in view of the reasons presented above, Applicants submit that the

Office has failed to meet the burden necessary in order to sustain the requirement for restriction.

Applicants therefore request that the requirement for restriction be withdrawn.

Applicants respectfully submit that the above-identified application is now in condition for examination on the merits, and early notice thereof is earnestly solicited.

Respectfully Submitted,

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